

Application No. 10/538,423
Paper Dated: March 1, 2010
In Reply to USPTO Correspondence of September 1, 2009
Attorney Docket No. 4544-051674

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): An isolated nucleic acid molecule for a salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) comprising the nucleic acid sequence of SEQ ID 1[[,]] or a nucleic sequence encoding protein comprising SEQ ID 3, ~~a nucleic acid sequence having at least 70% homology to SEQ ID 1 or a nucleic acid sequence having at least 70% homology to the nucleic acid sequence encoding the protein comprising the amino acid sequence of SEQ ID 3.~~

Claim 2 (Cancelled).

Claim 3 (Currently Amended): A process of obtaining cDNA, encoding a salt-tolerant L-myo-inositol 1-phosphate synthase comprising:

(i) isolation of a full-length cDNA for the L-myo-inositol 1-phosphate synthase gene from the leaf of *Porteresia coarctata* by reverse transcription followed by polymerase chain reaction; and

(ii) sequencing of the isolated L-myo-inositol 1-phosphate synthase gene, wherein the sequenced synthase from *Porteresia coarctata* (PINO1) is encoded by a nucleotide sequence (SEQ ID 1) SEQ ID 1 and has a deduced amino acid sequence (SEQ ID 3) SEQ ID 3.

Claim 4 (Previously Presented): The process as claimed in claim 3, wherein the isolated full-length cDNA of PINO1 is cloned into a suitable bacterial expression vector pET 20B(+) to produce expression plasmids.

Claim 5 (Previously Presented): The process as claimed in claim 4, wherein said plasmids are introduced into the host strain E. coli BL-21 (DE 3) for obtaining an expressed PINO1 gene product.

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Claim 6 (Previously Presented): The process as claimed in claim 5, wherein the expressed PINO1 proteins are solubilized in a solubilization buffer containing 8M Urea, 0.5 M NaCl, 20 mM Tris-HCl, pH 7.5, 10 mM ME and 2 mM PMSF.

Claim 7 (Previously Presented): A plasmid comprising the isolated nucleic acid molecule of claim 1.

Claim 8 (Previously Presented): A bacteria comprising the isolated nucleic acid molecule of claim 1.